

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028106**Date Inspected:** 04-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

2W PP13 W2-LSE (Interior)

This QA Inspector at random intervals, observed ABF/JV qualified welder Roby Smith #4245 performing the Shielded metal Arc Welding (SMAW) process in the 3G vertical position on the Longitudinal Stiffener (LS) of the Deck Access Hole (DAH) at 2W PP13 W2-LSE on the interior of the OBG. The splice joint was preheated to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket located at the opposite side of the stiffener prior/during welding. QC Inspector Steve Jensen was observed measuring the preheat temperature and setting the parameters to ensure compliance with the welding procedure specification (WPS) ABF-WPS-D1.5-1012-3. The welder was observed using a small disc grinder to blend the start/stop edges of the work to provide a smooth transition. The welder was observed utilizing 3.8mm E9018-H4R electrodes drawing amperage of 136. The electrodes were obtained from a baking oven verified by this QA Inspector. On a subsequent observation this QA Inspector monitored the work for quality and noted that it was in progress and appeared to be in general conformance with the contract documents.

12E-E2.1 (Interior)

This QA Inspector randomly observed ABF/JV qualified welder Xiao Jian Wan #9677 continuing to perform

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production welding using the Flux Core Arc Welding (FCAW) process in the 4G overhead position on the A deck joint at 12E-E2.1 on the interior of the OBG. The splice joint was preheated to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket located at the opposite side of the deck prior/during welding. This QA Inspector observed QC Inspector Salvador Merino verify prior to the start of welding operations, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with ABF-WPS-D1.5-1-3110-4. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted the work at this location is in progress and appeared to be in general conformance with the contract specifications.

12E PP111.1 (Interior)

This QA Inspector at random intervals made observations of ABF/JV qualified welder Chris Bowles #9317 performing 4G overhead position production welding using the FCAW process on the A deck seam weld at 12E PP111.1 on the interior of the OBG. This QA Inspector observed ABF personnel using Miller Proheat 35 Induction Heating System with the heater blanket located at the opposite side of the deck prior/during welding. This QA Inspector observed QC Inspector Salvador Merino using an infra-red temperature gauge to verify the preheat temperature of more than 325°F. This QA Inspector performed a verification of the welding parameters (Amps, Volts and Travel Speed) were in accordance with ABF-WPS-D1.5-1-3110-4. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted the work at this location is in progress and appeared to be in general conformance with the contract specifications.

12E PP117-BW1/SP1/SP2 (Interior)

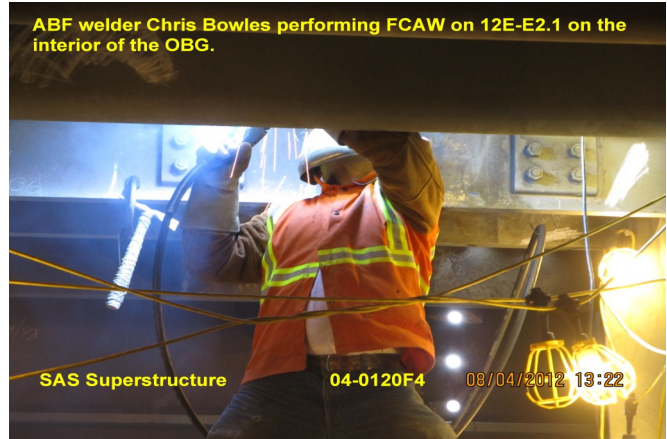
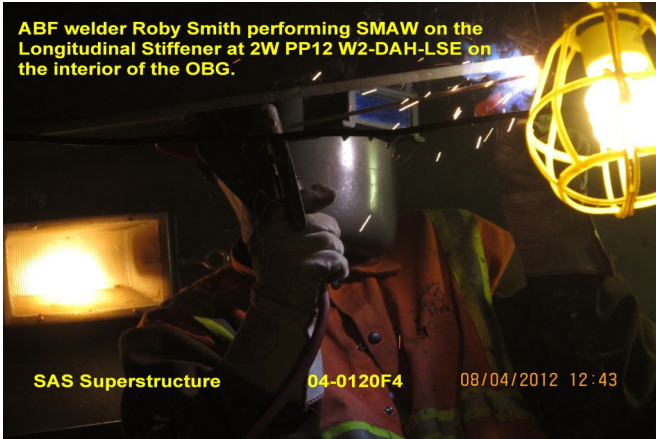
This QA Inspector randomly observed the in progress welding on 12E PP117-BW1/SP1/SP2 on the interior of the OBG. ABF/JV qualified welder Jia Yan #1571 was observed performing the SMAW process in the 3G vertical position. Prior to welding Quality Control (QC) Inspector Salvador Merino was observed monitoring the pre-heating of the joint and the parameters as they pertain to ABF-WPS-D1.5-1040A. This QA Inspector verified that the 3.2mm electrodes were stored in an electrically heated thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters. The welder was observed grinding and blending the start/stop edges of the work utilizing a small disc grinder and compressed air in between passes as QC measured the inter-pass temperatures with an infra-red temperature gun. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the production welding at this location was in progress and appeared to be in general conformance with the contract documents.

Summary of Conversations:

No relevant discussions to report.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
